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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/437,226 11/10/99 TULLOCH

J 540-161

EXAMINER

MM91/0122

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ARLINGTON VA 22201-4714

PATEL, P

ART UNIT

PAPER NUMBER

2858

DATE MAILED:

01/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/437,226

Applicant(s)

TULLOCH ET AL.

Examiner

Paresh Patel

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2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 10, line "images are...thermal images" not clear.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 2, 4-7 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elabd (US 4584523) in view of Wood (US 4473795).

Regarding claims 1, 2, 4-7 Elabd discloses: a method of passing a current through wire [lines 45-50 of column 3] and a use of thermal imaging system [lines 39-44 of column 3], an infrared detector [element 20 of fig. 1], a display monitor [line 39 of

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column 4], a thermal imaging camera [lines 49-54 of column 2], a detector is hand-held [lines 54-57 of column 2], a detector is stand mounted [lines 54-57 of column 2], detecting temperature changes of less than 0.5° C. [lines 65-68 of column 6],

Regarding claims 1, and 12-14 Elabd discloses all the essential element of the claimed invention except for a leakage current measuring means (ammeter), a fluid having electrolytic properties and fluid is capable of conducting a leakage current. Wood discloses an ammeter [element 26 of fig. 1], a fluid having electrolytic properties and capable of conducting a leakage current [element 18 of fig. 1]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Elabd to apply a conductive fluid having electrolyte property. The ordinary skill artisan would have been motivated to modify Elabd for the purpose of converting heat patterns into light patterns.

Regarding claim 15 Elabd and Wood discloses all the essential element of the claimed invention except for an Oscilloscope. Official Notice is taken that use of oscilloscope is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Elabd and Wood to use oscilloscope to study amplitude values of electrical quantities.

Claims 3, 8-11, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elabd and Wood as applied to claim 1 above, and further in view of Piety et al. (US 5637871).

Regarding claim 3, 8, 9 and 11 Elabd and Wood discloses all the essential element of the claimed invention except for a recording means for recording display

images, a recording means is adapted to computer to store display images, a recording means is adapted to video tape to store display images, a false color scale to represent various temperatures. Piety et al. (hereafter Piety) disclose a recording means for recording display images [see abstract lines 11-14], a recording means is adapted to computer to store display images [see abstract lines 16-18], a recording means is adapted to video tape to store display images [see abstract lines 14-16], a false color scale to represent various temperatures [lines 29-34 of column 13]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Elabd and Wood to include a recording means for recording display images, a recording means is adapted to computer to store display images, a recording means is adapted to video tape to store display images, a false color scale to represent various temperatures. The ordinary skill artisan would have been motivated to modify the combination of Elabd and Wood to measure a pressure at a point on given surface.

Regarding claim 10, as best understood by examiner is rejected. Official Notice is taken that calibrating an image is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to calibrate the image for greater accuracy.

Regarding claims 24 and 25 Elabd discloses all the essential element of the claimed invention except for measuring a datum value of heat emission and amount of fluid used. Official Notice is taken that measuring a datum value of heat emission is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Elabd to measure datum value for

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comparison and there by selecting proper amount of non-corrosion fluid to apply on cable for cleaning purpose.

Claims 16-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Elabd and Wood as applied to claim 1 above, and further in view of Singh (US 5624928).

Regarding claims 16-22 Elabd and Wood discloses all the essential element of the claimed invention except for an aqueous saline solution, a sodium chloride, an ammonium chloride, dripping of fluid, a spraying of fluid and wetting agent. Singh discloses an aqueous saline solution [line 63-65 of column 11], a sodium chloride[line 59-62 of column 11], an ammonium chloride [lines 36-40 of column 20], a dripping of fluid [lines 65-67 of column 11] and a spraying of fluid [lines 4-6 of column 12] and a wetting agent [Triton of line 37 of column 10]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Elabd and Wood to include an aqueous saline solution, a sodium chloride, an ammonium chloride, dripping of fluid and spraying of fluid. The ordinary skill artisan would have been motivated to modify the combination of Elabd and Wood for the purpose of cleaning the cable.

Regarding claim 23 Elabd and Wood discloses all the essential element of the claimed invention except for a fluid is non-corrosive. Official Notice is taken that a non-corrosive fluid is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use non-corrosive fluid to modify the combination of Elabd and Wood for the purpose of increasing the durability of cable.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dale R. Maley (US 3504524), Bethea (US 5396068), Lloyed et al. (US 3889053), Yue et al. (US 5504017).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 703-306-5859. The examiner can normally be reached on M-F (8:30 to 4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 001.

Paresh Patel
January 17, 2001


Safet Metjahic
Supervisory Patent Examiner
Technology Center 2800